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## PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Karl Schmidt Unisia, Inc.  
2425 Coliseum Boulevard South  
Fort Wayne, Indiana 46803**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T003-15163-00064	
Issued by: Original signed by Paul Dubenetzky Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: January 28, 2004  Expiration Date: January 28, 2004

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

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The Permittee owns and operates a stationary aluminum foundry manufacturing pistons.

Responsible Official:	Mark Lennart, Vice President of Operations
Source Address:	2425 Coliseum Boulevard South, Fort Wayne, IN 46803
Mailing Address:	2425 Coliseum Boulevard South, Fort Wayne, IN 46803
General Source Phone Number:	(219) 423-2141
SIC Code:	3361
County Location:	Allen
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) one (1) evaporator, referred to as EV1; and
- (b) eight (8) engine test cells, all constructed in 2001, each consisting of one (1) electric dyno and one (1) gasoline or diesel fuel fired reciprocating internal combustion engine, each engine with a maximum heat input rating of 1.1 million British thermal units (MMBtu) per hour and a maximum power output rating of 450 horsepower (HP), each exhausting through one (1) stack (Stacks 1 through 8).

### A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) natural gas-fired combustion sources with heat input equal to or less than ten million British thermal units per hour, including the following:
  - (1) one (1) natural gas-fired boiler, identified as Boiler #2, constructed in 1955, with a maximum heat input capacity of 8.4 million British thermal units (MMBtu) per hour;
  - (2) one (1) natural gas-fired boiler, identified as Boiler #3, constructed in 1983, with a maximum heat input capacity of 1.0 million British thermal units (MMBtu) per hour;
  - (3) one (1) natural gas-fired boiler, identified as Boiler #5, constructed in 1955, with a maximum heat input capacity of 8.59 million British thermal units (MMBtu) per hour;
  - (4) one (1) natural gas-fired boiler, identified as Boiler #7, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour;

- (5) one (1) natural gas-fired boiler, identified as Boiler #8, constructed in 2001, with a maximum heat input capacity of 2.5 million British thermal units (MMBtu) per hour;
  - (6) one (1) natural gas-fired boiler, identified as Boiler #9, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour; and
  - (7) one (1) natural gas-fired boiler, identified as Boiler #10, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour.
- (b) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (1) One (1) surface grinding operation, consisting of fifteen (15) surface grinders, with a maximum total throughput capacity of 800 pounds of processed metal per hour, with emissions controlled by one (1) baghouse;
- (c) The following facilities with emissions below insignificant thresholds:
- (1) ten (10) natural gas-fired reverberatory furnaces, each with a maximum melt capacity of 800 pounds per hour, referred to as F4 - F5, F11 - F12, F17 - F18, and F20 - F23. Furnaces F4 - F5, F17 - F18, and F22 each have a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour. Furnaces F11 - F12 and F20 - F21 each have a maximum heat input capacity of 3.1 MMBtu per hour. Furnace F23 has a maximum heat input capacity of 3.0 MMBtu per hour;
  - (2) one (1) natural gas-fired reverberatory furnace, with a maximum heat input capacity of 4.6 MMBtu per hour, and a maximum melt capacity of 2,000 pounds per hour, identified as F14;
  - (3) One (1) dry hearth furnace, fueled by natural gas only, with a heat input capacity of 5.1 million British thermal units per hour, and a charging capacity of 2,000 pounds per hour, identified as F13;
  - (4) One (1) melt furnace, identified as M1, with a maximum melt capacity of 1,200 pounds per hour, equipped with one (1) natural gas-fired melt burner, with a maximum heat input capacity of 2.0 million British thermal units (MMBtu) per hour, and two (2) natural gas-fired flat flame holding burners, each with a maximum heat input capacity of 1.0 MMBtu per hour;
  - (5) One (1) natural gas-fired melt furnace, with a maximum melt capacity of 2,500 pounds per hour, and a maximum heat input capacity of 5.5 MMBtu per hour, identified as M4;
  - (6) forty-eight (48) natural gas-fired crucible furnaces, each with a maximum melt capacity of 200 pounds per hour, and each with a maximum heat input capacity of 0.5 MMBtu per hour, referred to as C1a - C48a;
  - (7) eleven (11) natural gas-fired crucible furnaces, each with a maximum melt capacity of 400 pounds per hour, and each with a maximum heat input capacity of 1.0 MMBtu per hour, identified as C1b - C11b;
  - (8) two (2) natural gas-fired crucible furnaces, each with a maximum melt capacity of 600 pounds per hour, and each with a maximum heat input capacity of 1.0 MMBtu per hour, identified as C1c and C2c; and
  - (9) one (1) spray booth (SB,), with a maximum capacity of coating 3 molds per hour and 3 ladles per hour, using air atomization applicators, equipped with paper filters for particulate control and exhausting to the atmosphere.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B

## GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

### B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

### B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

**B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

#### B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,  
Compliance Section), or  
Telephone Number: 317-233-5674 (ask for Compliance Section)  
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
  - (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
  - (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
  - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]**

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- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

**B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
- (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted
- by this permit.
- (b) All previous registrations and permits are superseded by this permit.

**B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

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- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.16 Permit Renewal [326 IAC 2-7-4]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
  - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]  
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]  
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

**B.17 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]**

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(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

**B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]**

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(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

**B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]**

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(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

**B.20 Source Modification Requirement [326 IAC 2-7-10.5]**

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

**B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
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### Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, particulate matter emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Demolition and renovation  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

- (g) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

### **Testing Requirements [326 IAC 2-7-6(1)]**

#### **C.8 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.9 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

### **Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

#### **C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within thirty (30) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within thirty (30) days, the Permittee may extend the compliance schedule related to the equipment for an additional thirty (30) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial thirty (30) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

**C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

**C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.  
[326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.14 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

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- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be 10 days or more until the unit or device will be shut down, then the permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

- (3) An automatic measurement was taken when the process was not operating.
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)]  
[326 IAC 2-6]**

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- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
  - (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.

- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) one (1) evaporator, referred to as EV1;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to FESOP No. F003-5869-00064, issued on December 9, 1996, in order to render 326 IAC 8-1-6 not applicable, the amount of oil charged to the evaporator minus the oil disposed of as waste shall be limited to 32,880 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limits VOC emissions from the evaporator to less than 25 tons per year so that the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply.

#### D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

### Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.1.3 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the amount of oil charge to the evaporator and the amount of oil disposed of as waste. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (b) eight (8) engine test cells, all constructed in 2001, each consisting of one (1) electric dyno and one (1) gasoline or diesel fuel fired reciprocating internal combustion engine, each engine with a maximum heat input rating of 1.1 million British thermal units (MMBtu) per hour and a maximum power output rating of 450 horsepower (HP), each exhausting through one (1) stack (Stacks 1 through 8).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.2.1 PSD Minor Limit [326 IAC 2-2]

- (a) Pursuant to Second Significant Permit Revision No. 003-13612-00064, issued on August 20, 2001, the total usage of gasoline and gasoline equivalents in the eight (8) engine test cells shall not exceed 50,253 gallons of gasoline per twelve (12) consecutive month period, with compliance determined at the end of each month, so that VOC and CO emissions are limited below 100 tons per year.
- (b) Pursuant to Second Significant Permit Revision No. 003-13612-00064, issued on August 20, 2001, the total usage of diesel and diesel equivalents in the eight (8) engine test cells shall not exceed 327,814 gallons of diesel fuel per twelve (12) consecutive month period, with compliance determined at the end of each month, so that NOx emissions are limited below 100 tons per year.
- (c) For purposes of determining compliance, the following shall apply:
- (1) every 1,000 gallons of diesel fuel oil burned shall be equivalent to 33 gallons of gasoline based on CO emissions such that the total gallons of gasoline and gasoline equivalent input does not exceed the limit specified;
  - (2) every 1,000 gallons of gasoline burned shall be equivalent to 168.9 gallons of diesel fuel oil based on NOx emissions such that the total gallons of diesel fuel oil and diesel fuel oil equivalent input does not exceed the limit specified.

Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

### Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.2.2 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the fuel usage limits established in Condition D.2.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The usage of gasoline and gasoline equivalents, in gallons, in the eight (8) engine test cells each month;
  - (2) The usage of diesel and diesel equivalents, in gallons, in the eight (8) engine test cells each month; and
  - (3) A log of the dates of use.

- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.2.3 Reporting Requirements**

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A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) natural gas-fired combustion sources with heat input equal to or less than ten million British thermal units per hour, including the following:
- (1) one (1) natural gas-fired boiler, identified as Boiler #2, constructed in 1955, with a maximum heat input capacity of 8.4 million British thermal units (MMBtu) per hour;
  - (2) one (1) natural gas-fired boiler, identified as Boiler #3, constructed in 1983, with a maximum heat input capacity of 1.0 million British thermal units (MMBtu) per hour;
  - (3) one (1) natural gas-fired boiler, identified as Boiler #5, constructed in 1955, with a maximum heat input capacity of 8.59 million British thermal units (MMBtu) per hour;
  - (4) one (1) natural gas-fired boiler, identified as Boiler #7, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour;
  - (5) one (1) natural gas-fired boiler, identified as Boiler #8, constructed in 2001, with a maximum heat input capacity of 2.5 million British thermal units (MMBtu) per hour;
  - (6) one (1) natural gas-fired boiler, identified as Boiler #9, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour; and
  - (7) one (1) natural gas-fired boiler, identified as Boiler #10, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.3.1 Particulate [326 IAC 6-2-3][326 IAC 6-2-4]

- (a) Pursuant to FESOP F003-5869-00064, issued on December 9, 1996, and 326 IAC 6-2-3(d) and 326 IAC 6-2-3(e) (Particulate Emission Limitations for Sources of Indirect Heating) the following particulate emission limits shall apply to boilers #2, #3, and #5:
- (1) particulate emissions from each of the 8.4 and 8.59 MMBtu per hour heat input boilers, referred to as Boiler #2 and Boiler #5, respectively, shall not exceed 0.8 pound per MMBtu heat input.
  - (2) particulate emissions from the 1.0 MMBtu per hour heat input boiler, referred to as Boiler #3, shall not exceed 0.6 pound per MMBtu of heat input.
- (b) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each of the 3.5, 2.5, 3.5, and 3.5 MMBtu per hour heat input boilers, referred to as boilers #7, #8, #9, and #10, respectively, shall not exceed 0.45 pound per MMBtu of heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input  
Q = Total source maximum operating capacity rating in MMBtu/hr heat input.  
= 30.99 MMBtu/hr

## SECTION D.4

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (b) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
  - (1) One (1) surface grinding operation, consisting of fifteen (15) surface grinders, with a maximum total throughput capacity of 800 pounds of processed metal per hour, with emissions controlled by one (1) baghouse;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.4.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the surface grinding operations shall not exceed 2.2 pounds per hour when operating at a process weight rate of 800 pounds per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### D.4.2 Particulate Control

In order to comply with condition D.4.1, the baghouse for particulate control shall be in operation and control emissions from the surface grinding operations at all times that the surface grinding operations are in operation.

## SECTION D.5

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (c) The following facilities with emissions below insignificant thresholds:
- (1) ten (10) natural gas-fired reverberatory furnaces, each with a maximum melt capacity of 800 pounds per hour, referred to as F4 - F5, F11 - F12, F17 - F18, and F20 - F23. Furnaces F4 - F5, F17 - F18, and F22 each have a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour. Furnaces F11 - F12 and F20 - F21 each have a maximum heat input capacity of 3.1 MMBtu per hour. Furnace F23 has a maximum heat input capacity of 3.0 MMBtu per hour;
  - (2) one (1) natural gas-fired reverberatory furnace, with a maximum heat input capacity of 4.6 MMBtu per hour, and a maximum melt capacity of 2,000 pounds per hour, identified as F14;
  - (3) One (1) dry hearth furnace, fueled by natural gas only, with a heat input capacity of 5.1 million British thermal units per hour, and a charging capacity of 2,000 pounds per hour, identified as F13;
  - (4) One (1) melt furnace, identified as M1, with a maximum melt capacity of 1,200 pounds per hour, equipped with one (1) natural gas-fired melt burner, with a maximum heat input capacity of 2.0 million British thermal units (MMBtu) per hour, and two (2) natural gas-fired flat flame holding burners, each with a maximum heat input capacity of 1.0 MMBtu per hour;
  - (5) One (1) natural gas-fired melt furnace, with a maximum melt capacity of 2,500 pounds per hour, and a maximum heat input capacity of 5.5 MMBtu per hour, identified as M4;
  - (6) forty-eight (48) natural gas-fired crucible furnaces, each with a maximum melt capacity of 200 pounds per hour, and each with a maximum heat input capacity of 0.5 MMBtu per hour, referred to as C1a - C48a;
  - (7) eleven (11) natural gas-fired crucible furnaces, each with a maximum melt capacity of 400 pounds per hour, and each with a maximum heat input capacity of 1.0 MMBtu per hour, identified as C1b - C11b;
  - (8) two (2) natural gas-fired crucible furnaces, each with a maximum melt capacity of 600 pounds per hour, and each with a maximum heat input capacity of 1.0 MMBtu per hour, identified as C1c and C2c; and
  - (9) one (1) spray booth (SB<sub>1</sub>), with a maximum capacity of coating 3 molds per hour and 3 ladles per hour, using air atomization applicators, equipped with paper filters for particulate control and exhausting to the atmosphere.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.5.1 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the ten (10) reverberatory furnaces, identified as F4 - F5, F11, F12, F17 - F18, F20 - F23, shall not exceed 2.22 pounds per hour when each furnace is operating at a process weight rate of 800 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) reverberatory furnace, identified as F14, shall not exceed 4.1 pounds per hour when the furnace is operating at a process weight rate of 2,000 pounds per hour.

- (c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) melt furnace, identified as M1, shall not exceed 2.91 pounds per hour when the furnace is operating at a process weight rate of 1,200 pounds per hour.
- (d) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) melt furnace, identified as M4, shall not exceed 4.76 pounds per hour when the furnace is operating at a process weight rate of 2,500 pounds per hour.
- (e) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) hearth furnace, identified as F13, shall not exceed 4.1 pounds per hour when the furnace is operating at a process weight rate of 2,000 pounds per hour.
- (f) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the crucible furnaces identified as C1a through C48a shall not exceed 0.88 pounds per hour when each furnace is operating at a process weight rate of 200 pounds per hour.
- (g) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the crucible furnaces identified as C1b through C11b shall not exceed 1.4 pounds per hour when each furnace is operating at a process weight rate of 400 pounds per hour.
- (h) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the crucible furnaces identified as C1c and C2c shall not exceed 1.8 pounds per hour when each furnace is operating at a process weight rate of 600 pounds per hour.

The pounds per hour limitations above were calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

#### D.5.2 Particulate Matter (PM) [326 IAC 2-2]

Pursuant to First Significant Permit Revision No. 003-11697-00064, issued on April 26, 2001, in order to render 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) The PM emissions from each of the ten (10) reverberatory furnaces, identified as F4 - F5, F11, F12, F17 - F18, F20 - F23, shall be limited to 0.42 pounds per hour.
- (b) The PM emissions from the one (1) reverberatory furnace, identified as F14, shall be limited to 0.63 pounds per hour.
- (c) The PM emissions from the one (1) melt furnace, identified as M1, shall be limited to 0.35 pounds per hour.
- (d) The PM emissions from the one (1) melt furnace, identified as M4, shall be limited to 0.71 pounds per hour.
- (e) The PM emissions from the one (1) hearth furnace, identified as F13, shall be limited to 0.63 pounds per hour.

- (f) The PM emissions from each of the crucible furnaces identified as C1a through C48a shall be limited to 0.19 pounds per hour.
- (g) The PM emissions from each of the crucible furnaces identified as C1b through C11b shall be limited to 0.38 pounds per hour.
- (h) The PM emissions from each of the crucible furnaces identified as C1c and C2c shall be limited to 0.57 pounds per hour.

The PM emission limits will ensure that the requirements of 326 IAC 2-2 (PSD) do not apply.

#### D.5.3 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to 40 CFR 52, Subpart P, the PM from the one (1) spray booth (SB<sub>1</sub>) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

#### D.5.4 Secondary Aluminum NESHAP [40 CFR 63, Subpart RRR]

Each of the reverberatory furnaces (F4 - F5, F11 - F12, F14, F17 - F18, and F20 - F23), the dry hearth furnace (F13), the two (2) melt furnaces (M1 and M4), and the sixty-one (61) crucible furnaces (C1a - C48a, C1b - C11b, C1c, and C2c) shall only melt clean charge, customer returns, or internal scrap as defined under 40 CFR 63.1503. Therefore, the requirements of 40 CFR 63, Subpart RRR do not apply.

#### D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the reverberatory furnaces, dry hearth furnaces, and melt furnaces and for the spray booth and its control device.

### **Compliance Determination Requirements**

#### D.5.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between January, 2005, and June, 2005, in order to demonstrate compliance with Conditions D.5.1 and D.5.2, the Permittee shall perform PM and PM-10 testing on a representative reverberatory furnace utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### D.5.7 Particulate [326 IAC 6-3-2(d)]

Pursuant to Exemption No. 003-16987-00064, issued on February 14, 2003, and 326 IAC 6-3-2(d), particulate from the spray booth (SB<sub>1</sub>) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

#### D.5.8 Monitoring

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- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### D.5.9 Record Keeping Requirements

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- (a) To document compliance with Condition D.5.8, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

### PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Karl Schmidt Unisia , Inc.  
Source Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Mailing Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Part 70 Permit No.: T003-15163-00064

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) \_\_\_\_\_

9 Report (specify) \_\_\_\_\_

9 Notification (specify) \_\_\_\_\_

9 Affidavit (specify) \_\_\_\_\_

9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Karl Schmidt Unisia , Inc.  
Source Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Mailing Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Part 70 Permit No.: T003-15163-00064

**This form consists of 2 pages**

**Page 1 of 2**

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
- C** The Permittee must notify the Office of Air Quality (OAQ), within four **(4)** business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
  - C** The Permittee must submit notice in writing or by facsimile within two **(2)** working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: Karl Schmidt Unisia , Inc.  
Source Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Mailing Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Part 70 Permit No.: T003-15163-00064  
Facility: Evaporator, EV1  
Parameter: Net oil usage  
Limit: the amount of oil charged to the evaporator minus the oil disposed of as waste shall be limited to 32,880 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Net Oil Usage This Month (gallons)	Net Oil Usage Previous 11 Months (gallons)	12 Month Total Net Oil Usage (gallons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: Karl Schmidt Unisia , Inc.  
Source Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Mailing Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Part 70 Permit No.: T003-15163-00064  
Facility: Eight (8) engine test cells  
Parameter: Gasoline usage  
Limit: the total usage of gasoline and gasoline equivalents in the eight (8) engine test cells shall not exceed 50,253 gallons of gasoline per twelve (12) consecutive month period, with compliance determined at the end of each month. For purposes of determining compliance, every 1,000 gallons of diesel fuel oil burned shall be equivalent to 33 gallons of gasoline based on CO emissions such that the total gallons of gasoline and gasoline equivalent input does not exceed the limit specified.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Gasoline and Equivalent Usage This Month (gallons)	Gasoline and Equivalent Usage Previous 11 Months (gallons)	12 Month Total Gasoline and Equivalent Usage (gallons)
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: Karl Schmidt Unisia , Inc.  
Source Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Mailing Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Part 70 Permit No.: T003-15163-00064  
Facility: Eight (8) engine test cells  
Parameter: Diesel usage  
Limit: the total usage of diesel and diesel equivalents in the eight (8) engine test cells shall not exceed 327,814 gallons of diesel fuel per twelve (12) consecutive month period, with compliance determined at the end of each month. For purposes of determining compliance, every 1,000 gallons of gasoline burned shall be equivalent to 168.9 gallons of diesel fuel oil based on NOx emissions such that the total gallons of diesel fuel oil and diesel fuel oil equivalent input does not exceed the limit specified.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Diesel and Equivalent Usage This Month (gallons)	Diesel and Equivalent Usage Previous 11 Months (gallons)	12 Month Total Diesel and Equivalent Usage (gallons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Karl Schmidt Unisia , Inc.  
Source Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Mailing Address: 2425 Coliseum Boulevard South, Fort Wayne, IN 46803  
Part 70 Permit No.: T003-15163-00064

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for a Part 70 Operating Permit

Source Name: Karl Schmidt Unisia, Inc.  
Source Location: 2425 Coliseum Boulevard South, Fort Wayne, Indiana 46803  
County: Allen  
SIC Code: 3361  
Operation Permit No.: T003-15163-00064  
Permit Reviewer: Trish Earls/EVP

On October 29, 2003, the Office of Air Quality (OAQ) had a notice published in the News Sentinel, Fort Wayne, Indiana, stating that Karl Schmidt Unisia, Inc. had applied for a Part 70 Operating Permit to operate a stationary aluminum foundry manufacturing pistons. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On November 26, 2003, Charles Staehler of August Mack Environmental, Inc. submitted comments on behalf of Karl Schmidt Unisia, Inc. (KSU) on the proposed permit. A summary of the comments and responses is as follows:

#### **Comment #1**

Section A.3(b)(1) - Please remove the reference to the two shot blast systems. The permit should be modified as indicated below:

- (1) One surface grinding operation consisting of 15 surface grinders, with a maximum total throughput capacity of 800 pounds of processed metal per hour, with emissions controlled by one (1) baghouse.

The surface grinding operations will be controlled by a baghouse with a design grain loading of less than 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute.

#### **Response #1**

Section A.3(b)(1) has been revised to include the grinding operation instead of shot blasting as follows:

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]  
[326 IAC 2-7-5(15)]

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This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (b) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (1) ~~two (2) shot blast systems, each~~ **One (1) surface grinding operation, consisting of fifteen (15) surface grinders**, with a maximum **total** throughput capacity of 800 pounds of processed metal per hour, ~~each~~ with emissions controlled by one (1) baghouse;

### **Comment #2**

Section A.3(c)(10) - Please add an additional facility with emissions below insignificant thresholds. KSU operates a RO parts washer with a maximum capacity of 720 pounds per hour. The RO parts washer will utilize hot water for parts washing and will therefore only generate steam which will be released to the atmosphere. KSU does not utilize any cleaners in the parts washer. The permit should be modified as indicated below:

- (10) One RO parts washer, with a maximum total throughput capacity of 720 pounds of processed metal per hour, utilizing only hot water to clean the parts, with no emission controls.

### **Response #2**

Since the parts washer only generates steam and does not have any particulate emissions, it is not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). Also, since the parts washer does not use any solvents, it is not subject to the requirements under 326 IAC 8-3 (Organic Solvent Degreasing Operations). Therefore, it is not a specifically regulated insignificant activity and will not be added to section A.3 of the Part 70 permit, which is only for specifically regulated insignificant activities. It will only be added to the list of insignificant activities that is currently in the Technical Support Document.

The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and are part of the record regarding this permit decision. The list of all insignificant activities at the source is revised as documented in this addendum to read as follows:

### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) natural gas-fired combustion sources with heat input equal to or less than ten million British thermal units per hour, including the following:
  - (1) one (1) natural gas-fired boiler, identified as Boiler #2, constructed in 1955, with a maximum heat input capacity of 8.4 million British thermal units (MMBtu) per hour;
  - (2) one (1) natural gas-fired boiler, identified as Boiler #3, constructed in 1983, with a maximum heat input capacity of 1.0 million British thermal units (MMBtu) per hour;

- (3) one (1) natural gas-fired boiler, identified as Boiler #5, constructed in 1955, with a maximum heat input capacity of 8.59 million British thermal units (MMBtu) per hour;
- (4) one (1) natural gas-fired boiler, identified as Boiler #7, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour;
- (5) one (1) natural gas-fired boiler, identified as Boiler #8, constructed in 2001, with a maximum heat input capacity of 2.5 million British thermal units (MMBtu) per hour;
- (6) one (1) natural gas-fired boiler, identified as Boiler #9, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour; and
- (7) one (1) natural gas-fired boiler, identified as Boiler #10, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour.

Note: Three (3) boilers previously referred to as Boiler #1, Boiler #4 and Boiler #6 have been removed from the source. Boilers #7 through #10 are new boilers that were added to the source. Potential emissions from the new boilers are at exempt levels, therefore, they did not require previous approval from OAQ to be installed.

- (b) a gasoline fuel transfer and dispensing operation;
- (c) storage tanks;
- (d) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (e) activities associated with the treatment of wastewater streams;
- (f) quenching operations used with heat treating processes;
- (g) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (h) trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone;
- (i) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (1) ~~two (2) shot blast systems, each~~ **One (1) surface grinding operation, consisting of fifteen (15) surface grinders**, with a maximum **total** throughput capacity of 800 pounds of processed metal per hour, ~~each~~ with emissions controlled by one (1) baghouse;
- (j) a coating operation and curing oven for surface coating pistons which includes a pre-washer, dryer, roller coating, silk screen coating application, and a curing oven (pre-heating and curing oven);

- (k) a phosphate pretreat line, consisting of six dip tanks connected to a mist eliminator;
- (l) an electric bake oven (14kW) to bake and cure a maximum of 80 pounds per hour graphite coated aluminum pistons;
- (m) a tin plating line, consisting of six dip tanks connected to a wet collector;
- (n) five aqueous parts washers (PW1 - 5) for washing cutting fluid off pistons;
- (o) two aqueous board washers (BW1 - 2) for washing cutting fluid off pistons;
- (p) two tin plating systems which include a detergent washer section, surface pretreatment, and plating and rinse sections;
- (q) lathe room exhaust system to remove gaseous emissions;
- (r) maintenance welding operations and maintenance brazing operations;
- (s) diesel testing cells;
- (t) The following facilities with emissions below insignificant thresholds:
  - (1) ten (10) natural gas-fired reverberatory furnaces, each with a maximum melt capacity of 800 pounds per hour, referred to as F4 - F5, F11 - F12, F17 - F18, and F20 - F23. Furnaces F4 - F5, F17 - F18, and F22 each have a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour. Furnaces F11 - F12 and F20 - F21 each have a maximum heat input capacity of 3.1 MMBtu per hour. Furnace F23 has a maximum heat input capacity of 3.0 MMBtu per hour;
  - (2) one (1) natural gas-fired reverberatory furnace, with a maximum heat input capacity of 4.6 MMBtu per hour, and a maximum melt capacity of 2,000 pounds per hour, identified as F14;
  - (3) One (1) dry hearth furnace, fueled by natural gas only, with a heat input capacity of 5.1 million British thermal units per hour, and a charging capacity of 2,000 pounds per hour, identified as F13;
  - (4) One (1) melt furnace, identified as M1, with a maximum melt capacity of 1,200 pounds per hour, equipped with one (1) natural gas-fired melt burner, with a maximum heat input capacity of 2.0 million British thermal units (MMBtu) per hour, and two (2) natural gas-fired flat flame holding burners, each with a maximum heat input capacity of 1.0 MMBtu per hour;
  - (5) One (1) natural gas-fired melt furnace, with a maximum melt capacity of 2,500 pounds per hour, and a maximum heat input capacity of 5.5 MMBtu per hour, identified as M4;
  - (6) forty-eight (48) natural gas-fired crucible furnaces, each with a maximum melt capacity of 200 pounds per hour, and each with a maximum heat input capacity of 0.5 MMBtu per hour, referred to as C1a - C48a;
  - (7) eleven (11) natural gas-fired crucible furnaces, each with a maximum melt capacity of 400 pounds per hour, and each with a maximum heat input capacity of 1.0 MMBtu per hour, identified as C1b - C11b;
  - (8) two (2) natural gas-fired crucible furnaces, each with a maximum melt capacity of 600 pounds per hour, and each with a maximum heat input capacity of 1.0 MMBtu per hour, identified as C1c and C2c;

- (9) one (1) natural gas-fired heat treat oven, with a maximum rated capacity of 1.2 million British thermal units (MMBtu) per hour, exhausting through one (1) stack; and
  - (10) one (1) spray booth (SB<sub>1</sub>), with a maximum capacity of coating 3 molds per hour and 3 ladles per hour, using air atomization applicators, equipped with paper filters for particulate control and exhausting to the atmosphere.
  - (11) **One (1) RO parts washer, with a maximum total throughput capacity of 720 pounds of processed metal per hour, utilizing only hot water to clean the parts, with no emission controls.**
- (u) VOC and HAP storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons. These units also have potential PM, PM<sub>10</sub>, and SO<sub>2</sub> emissions below insignificant thresholds:
- (1) one (1) anodizing line, identified as Anodizing Line #1, processing a maximum of 480 pistons per hour, consisting of the following:
    - (A) one (1) covered electrolyte holding tank with a maximum capacity of 300 gallons;
    - (B) one (1) rectifier; and
    - (C) one (1) packed bed scrubber for control of sulfur dioxide and sulfuric acid mist emissions from the holding tank, exhausting through one (1) stack, SCR1, which exhausts inside the building;
  - (2) one (1) anodizing line, identified as Anodizing Line #2, processing a maximum of 480 pistons per hour, consisting of the following:
    - (A) one (1) covered electrolyte holding tank with a maximum capacity of 300 gallons;
    - (B) one (1) rectifier; and
    - (C) one (1) packed bed scrubber for control of sulfur dioxide and sulfuric acid mist emissions from the holding tank, exhausting through one (1) stack, SCR2, which exhausts inside the building;
  - (3) one (1) anodizing line, identified as Anodizing Line #3, processing a maximum of 480 pistons per hour, consisting of the following:
    - (A) one (1) covered electrolyte holding tank with a maximum capacity of 300 gallons;
    - (B) one (1) rectifier; and
    - (C) one (1) packed bed scrubber for control of sulfur dioxide and sulfuric acid mist emissions from the holding tank, exhausting through one (1) stack, SCR3, which exhausts inside the building;

### **Comment #3**

Section D.4 - Please remove the reference to the two shot blast systems. The permit should be modified as indicated below:

- (1) One surface grinding operation consisting of 15 surface grinders, with a maximum total throughput capacity of 800 pounds of processed metal per hour, with emissions controlled by one (1) baghouse.

### **Response #3**

The facility description in section D.4 is revised to read as follows:

- (b) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
- (1) ~~two (2) shot blast systems, each~~ **One (1) surface grinding operation, consisting of fifteen (15) surface grinders**, with a maximum **total** throughput capacity of 800 pounds of processed metal per hour, ~~each~~ with emissions controlled by one (1) baghouse;

### **Comment #4**

Section D.4.1 - Please remove the reference to the two shot blast systems. The permit should be modified as indicated below:

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the surface grinding operations shall not exceed 2.2 pounds per hour when operating at a process weight rate of 800 pounds per hour. The pounds per hour limitation was calculated using the following equation:

### **Response #4**

Condition D.4.1 is revised to read as follows:

#### **D.4.1 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from ~~each of the shot blast systems~~ **the surface grinding operations** shall not exceed 2.2 pounds per hour when ~~each is~~ operating at a process weight rate of 800 pounds per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

### **Comment #5**

Section D.4.2 - Please remove the reference to the two shot blast systems. The permit should be modified as indicated below:

In order to comply with condition D.4.1, the baghouse for particulate control shall be in operation and control emissions from the surface grinding operations at all times that the surface grinding operations are in operation.

### **Response #5**

Condition D.4.2 is revised to read as follows:

#### **D.4.2 Particulate Control**

In order to comply with condition D.4.1, the baghouse for particulate control shall be in operation and control emissions from the ~~two (2) shot blast systems~~ **surface grinding operations** at all times that the ~~two (2) shot blast systems~~ **surface grinding operations** are in operation.

### **Comment #6**

Section D.5 (10) - Please add an additional facility with emissions below insignificant thresholds. KSU operates a RO parts washer with a maximum capacity of 720 pounds per hour. The RO parts washer will utilize hot water for parts washing and will therefore only generate steam which will be released to the atmosphere. KSU does not utilize any cleaners in the parts washer. The permit should be modified as indicated below:

- (10) One RO parts washer, with a maximum total throughput capacity of 720 pounds of processed metal per hour, utilizing only hot water to clean the parts, with no emission controls.

### **Response #6**

Since the parts washer only generates steam and does not have any particulate emissions, it is not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). Also, since the parts washer does not use any solvents, it is not subject to the requirements under 326 IAC 8-3 (Organic Solvent Degreasing Operations). Therefore, it is not a specifically regulated insignificant activity and will not be added to section D.5 of the Part 70 permit. It will only be added to the list of insignificant activities that is included in response #2 above.

### **Comment #7**

Section D.5.1(i) - Please add the following:

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the RO parts washer shall not exceed 2.1 pounds per hour when the RO parts washer is operating at a process weight rate of 720 pounds per hour.

### **Response #7**

Since the parts washer only generates steam and does not have any particulate emissions, it is not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). Therefore, no changes have been made to condition D.5.1.

### **Comment #8**

Technical Support Document - Please revise the list of insignificant activities as indicated above. In addition, please revise the emission calculations by removing the emissions due to shot blasting machines and adding the emissions resulting from the surface grinding operations. The surface grinding potential emissions are estimated to be 0.02 tons per year of particulate. The emission factor is from FIRE for casting finishing operations in Gray Iron Foundries. The emission estimate is provided below:

(Process Weight Rate lbs/hr)(8,760 hrs/yr)(1 ton/2,000 lbs)(Emission Factor)(1 ton/2,000 lbs)

(800 lbs/hr)(8,760 hrs/yr)(1 ton/2,000 lbs)(0.01 lbs/ton)(1 ton/2,000 lbs) = 0.02 tons/yr

### **Response #8**

As stated in response #2 above, the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and are part of the record regarding this permit decision. The revised list of all insignificant activities at the source as documented in this addendum is included in response #2 above.

Pages 1 and 2 of Appendix A have been revised to include emissions from the surface grinding operations instead of emissions from shot blasting.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted).

1. The title of condition B.21, Inspection and Entry, has been revised to include an additional rule cite as follows:

B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2][IC 13-30-3-1]**[IC 13-17-3-2]**

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2. Paragraph (c) of condition C.8, Performance Testing, condition C.13, Risk Management Plan, and paragraph (a) of condition C.18, General Reporting Requirements, have been revised so that "source" is changed to "Permittee" as follows:

C.8 Performance Testing [326 IAC 3-6]

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- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the ~~source~~ **Permittee** submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the ~~source~~ **Permittee** must comply with the applicable requirements of 40 CFR 68.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

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- (a) The ~~source~~ **Permittee** shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Part 70 Operating Permit**

#### **Source Background and Description**

**Source Name:** Karl Schmidt Unisia, Inc.  
**Source Location:** 2425 Coliseum Boulevard South, Fort Wayne, Indiana 46803  
**County:** Allen  
**SIC Code:** 3361  
**Operation Permit No.:** T003-15163-00064  
**Permit Reviewer:** Trish Earls/EVP

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from Karl Schmidt Unisia, Inc. (formerly KUS Zollner Division) relating to the operation of an aluminum foundry manufacturing pistons.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) one (1) evaporator, referred to as EV1; and
- (b) eight (8) engine test cells, all constructed in 2001, each consisting of one (1) electric dyno and one (1) gasoline or diesel fuel fired reciprocating internal combustion engine, each engine with a maximum heat input rating of 1.1 million British thermal units (MMBtu) per hour and a maximum power output rating of 450 horsepower (HP), each exhausting through one (1) stack (Stacks 1 through 8).

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

#### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) natural gas-fired combustion sources with heat input equal to or less than ten million British thermal units per hour, including the following:
  - (1) one (1) natural gas-fired boiler, identified as Boiler #2, constructed in 1955, with a maximum heat input capacity of 8.4 million British thermal units (MMBtu) per hour;
  - (2) one (1) natural gas-fired boiler, identified as Boiler #3, constructed in 1983, with a maximum heat input capacity of 1.0 million British thermal units (MMBtu) per hour;

- (3) one (1) natural gas-fired boiler, identified as Boiler #5, constructed in 1955, with a maximum heat input capacity of 8.59 million British thermal units (MMBtu) per hour;
- (4) one (1) natural gas-fired boiler, identified as Boiler #7, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour;
- (5) one (1) natural gas-fired boiler, identified as Boiler #8, constructed in 2001, with a maximum heat input capacity of 2.5 million British thermal units (MMBtu) per hour;
- (6) one (1) natural gas-fired boiler, identified as Boiler #9, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour; and
- (7) one (1) natural gas-fired boiler, identified as Boiler #10, constructed in 2001, with a maximum heat input capacity of 3.5 million British thermal units (MMBtu) per hour.

Note: Three (3) boilers previously referred to as Boiler #1, Boiler #4 and Boiler #6 have been removed from the source. Boilers #7 through #10 are new boilers that were added to the source. Potential emissions from the new boilers are at exempt levels, therefore, they did not require previous approval from OAQ to be installed.

- (b) a gasoline fuel transfer and dispensing operation;
- (c) storage tanks;
- (d) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (e) activities associated with the treatment of wastewater streams;
- (f) quenching operations used with heat treating processes;
- (g) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (h) trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone;
- (i) grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.
  - (1) two (2) shot blast systems, each with a maximum throughput capacity of 800 pounds of processed metal per hour, each with emissions controlled by one (1) baghouse;
- (j) a coating operation and curing oven for surface coating pistons which includes a pre-washer, dryer, roller coating, silk screen coating application, and a curing oven (pre-heating and curing oven);
- (k) a phosphate pretreat line, consisting of six dip tanks connected to a mist eliminator;
- (l) an electric bake oven (14kW) to bake and cure a maximum of 80 pounds per hour graphite coated aluminum pistons;

- (m) a tin plating line, consisting of six dip tanks connected to a wet collector;
- (n) five aqueous parts washers (PW1 - 5) for washing cutting fluid off pistons;
- (o) two aqueous board washers (BW1 - 2) for washing cutting fluid off pistons;
- (p) two tin plating systems which include a detergent washer section, surface pretreatment, and plating and rinse sections;
- (q) lathe room exhaust system to remove gaseous emissions;
- (r) maintenance welding operations and maintenance brazing operations;
- (s) diesel testing cells;
- (t) The following facilities with emissions below insignificant thresholds:
  - (1) ten (10) natural gas-fired reverberatory furnaces, each with a maximum melt capacity of 800 pounds per hour, referred to as F4 - F5, F11 - F12, F17 - F18, and F20 - F23. Furnaces F4 - F5, F17 - F18, and F22 each have a maximum heat input capacity of 2.4 million British thermal units (MMBtu) per hour. Furnaces F11 - F12 and F20 - F21 each have a maximum heat input capacity of 3.1 MMBtu per hour. Furnace F23 has a maximum heat input capacity of 3.0 MMBtu per hour;
  - (2) one (1) natural gas-fired reverberatory furnace, with a maximum heat input capacity of 4.6 MMBtu per hour, and a maximum melt capacity of 2,000 pounds per hour, identified as F14;
  - (3) One (1) dry hearth furnace, fueled by natural gas only, with a heat input capacity of 5.1 million British thermal units per hour, and a charging capacity of 2,000 pounds per hour, identified as F13;
  - (4) One (1) melt furnace, identified as M1, with a maximum melt capacity of 1,200 pounds per hour, equipped with one (1) natural gas-fired melt burner, with a maximum heat input capacity of 2.0 million British thermal units (MMBtu) per hour, and two (2) natural gas-fired flat flame holding burners, each with a maximum heat input capacity of 1.0 MMBtu per hour;
  - (5) One (1) natural gas-fired melt furnace, with a maximum melt capacity of 2,500 pounds per hour, and a maximum heat input capacity of 5.5 MMBtu per hour, identified as M4;
  - (6) forty-eight (48) natural gas-fired crucible furnaces, each with a maximum melt capacity of 200 pounds per hour, and each with a maximum heat input capacity of 0.5 MMBtu per hour, referred to as C1a - C48a;
  - (7) eleven (11) natural gas-fired crucible furnaces, each with a maximum melt capacity of 400 pounds per hour, and each with a maximum heat input capacity of 1.0 MMBtu per hour, identified as C1b - C11b;
  - (8) two (2) natural gas-fired crucible furnaces, each with a maximum melt capacity of 600 pounds per hour, and each with a maximum heat input capacity of 1.0 MMBtu per hour, identified as C1c and C2c;
  - (9) one (1) natural gas-fired heat treat oven, with a maximum rated capacity of 1.2 million British thermal units (MMBtu) per hour, exhausting through one (1) stack; and
  - (10) one (1) spray booth (SB<sub>1</sub>), with a maximum capacity of coating 3 molds per hour and 3 ladles per hour, using air atomization applicators, equipped with paper filters for particulate control and exhausting to the atmosphere.
- (u) VOC and HAP storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons. These units also have potential PM, PM<sub>10</sub>, and SO<sub>2</sub> emissions below insignificant thresholds:

- (1) one (1) anodizing line, identified as Anodizing Line #1, processing a maximum of 480 pistons per hour, consisting of the following:
  - (A) one (1) covered electrolyte holding tank with a maximum capacity of 300 gallons;
  - (B) one (1) rectifier; and
  - (C) one (1) packed bed scrubber for control of sulfur dioxide and sulfuric acid mist emissions from the holding tank, exhausting through one (1) stack, SCR1, which exhausts inside the building;
- (2) one (1) anodizing line, identified as Anodizing Line #2, processing a maximum of 480 pistons per hour, consisting of the following:
  - (A) one (1) covered electrolyte holding tank with a maximum capacity of 300 gallons;
  - (B) one (1) rectifier; and
  - (C) one (1) packed bed scrubber for control of sulfur dioxide and sulfuric acid mist emissions from the holding tank, exhausting through one (1) stack, SCR2, which exhausts inside the building;
- (3) one (1) anodizing line, identified as Anodizing Line #3, processing a maximum of 480 pistons per hour, consisting of the following:
  - (A) one (1) covered electrolyte holding tank with a maximum capacity of 300 gallons;
  - (B) one (1) rectifier; and
  - (C) one (1) packed bed scrubber for control of sulfur dioxide and sulfuric acid mist emissions from the holding tank, exhausting through one (1) stack, SCR3, which exhausts inside the building;

### Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) FESOP No. F003-5869-00064, issued on December 9, 1996;
- (b) First Administrative Amendment No. 003-11216-00064, issued on November 22, 1999;
- (c) Exemption No. 003-12117-00064, issued on April 14, 2000;
- (d) Exemption No. 003-12315-00064, issued on July 6, 2000;
- (e) First Significant Permit Revision No.: 003-11697-00064, issued on April 26, 2001;
- (f) Second Significant Permit Revision No.: 003-13612-00064, issued on August 20, 2001;
- (g) Second Administrative Amendment No. 003-15448-00064, issued on May 22, 2002;
- (h) Exemption No. 003-16893-00064, issued on January 14, 2003; and
- (i) Exemption No. 003-16987-00064, issued on February 14, 2003.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Many of the conditions from the original FESOP that were revised or removed are documented in the First Significant Permit Revision No. 003-11697-00064, issued on April 26, 2001.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 permit:

- (a) All construction conditions from all previously issued permits.

Reason not incorporated: All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

- (b) All FESOP conditions.

Reason not incorporated: The source transitioned to a TV permit; therefore, the FESOP limits are no longer applicable.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Recommendation**

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on November 15, 2001.

Note: This source originally submitted a FESOP Renewal application (No. 003-14176-00064) to the OAQ on March 13, 2001. Upon issuance of Second Significant Permit Revision No.: 003-13612-00064, on August 20, 2001, this source became subject to the requirements of 326 IAC 2-7 (Part 70). An application for a transition from a FESOP to a Part 70 permit was received on November 15, 2001.

There was no notice of completeness letter mailed to the source.

### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (8 pages).

### **Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	greater than 100, less than 250
PM-10	greater than 100, less than 250
SO <sub>2</sub>	less than 100
VOC	greater than 250
CO	greater than 250
NO <sub>x</sub>	greater than 250

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
nickel	less than 10
chromium	less than 10
hexane	less than 10
formaldehyde	less than 10
TOTAL	less than 25

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM-10, VOC, CO, and NO<sub>x</sub> are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions  
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

### Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2001 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	not reported
PM-10	not reported
SO <sub>2</sub>	not reported
VOC	8.54
CO	not reported
NO <sub>x</sub>	not reported
HAP (specify)	not reported

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Reverberatory and Melt Furnaces <sup>(1)</sup>	1.05	6.00	0.14	8.01	17.12	20.40	7.11
Crucible Furnaces <sup>(1)</sup>	63.56	57.83	0.10	0.89	13.62	16.21	1.48
Pouring/Casting	0.0	0.0	1.35	9.47	0.0	0.68	0.0
Natural Gas Combustion <sup>(2)</sup>	0.27	1.08	0.08	0.76	11.85	14.10	0.27
Evaporator <sup>(3)</sup>	0.0	0.0	0.0	24.0	0.0	0.0	0.0
Surface Coating <sup>(3)</sup>	0.09	0.09	0.0	0.62	0.0	0.0	0.07
Tin Electroplating <sup>(3)</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Welding <sup>(3)</sup>	4.56	4.56	0.0	0.0	0.0	0.0	0.0
Shot blasting <sup>(3)</sup>	4.56	4.56	0.0	0.0	0.0	0.0	0.0
Parts Washers <sup>(3)</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Engine Test Cells <sup>(4)</sup>	6.97	6.97	6.51	3.72	99.00	99.00	negl.
Anodizing Lines <sup>(5)</sup>	0.35	0.35	0.43	0.0	0.0	0.0	0.0
Spray Booth (SB <sub>1</sub> )	4.97	4.97	0.0	0.0	0.0	0.0	0.0
<b>Total Emissions</b>	<b>86.38</b>	<b>86.41</b>	<b>8.61</b>	<b>47.47</b>	<b>141.59</b>	<b>150.39</b>	<b>8.93</b>

- (1) Emissions from reverberatory and melt furnaces and crucible furnaces include emissions from natural gas combustion.
- (2) Emissions from natural gas combustion represent combustion emissions from the boilers and the heat treat oven.
- (3) Emissions from other existing equipment is based on FESOP No. F003-5869-00064, issued 12/9/96.
- (4) Limited emissions from engine test cells represent emissions after fuel usage limitation of 50,253 gallons of gasoline and gasoline equivalents per year and 327,814 gallons of diesel and diesel equivalents per year to render the requirements of 326 IAC 2-2 (PSD) not applicable.
- (5) Emissions from anodizing lines represent controlled emissions.

### County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Allen County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions  
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

## **Part 70 Permit Conditions**

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

## **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.
- (c) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63.1500 through 63.1519, Subpart RRR, because pursuant to 40 CFR 63.1500 (d), the requirements of this subpart do not apply to manufacturers of aluminum die castings, aluminum foundries, or aluminum extruders that melt no materials other than clean charge and materials generated within the facility; and that also do not operate a thermal chip dryer, sweat furnace or scrap dryer/delacquering kiln/decoating kiln. This source, which is an area source of HAP, not a major source of HAPs, only melts clean charge and does not operate a thermal chip dryer, sweat furnace or scrap dryer/delacquering kiln/decoating kiln, therefore, the requirements of this rule do not apply.
- (d) The three (3) anodizing lines listed above do not use chromic acid, therefore, they are not subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR 63.340 -63.347, Subpart N, "National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks". Any change or modification in which the electrolyte solution is changed to a chromic acid solution shall require prior approval from the OAQ before such change occurs.

- (e) The eight (8) engine test cells are not subject to the NESHAP, 40 CFR 63.9280 through 63.9375, Subpart P, "National Emission Standard for Hazardous Air Pollutants for Engine Test Cells/Stands" because this source does not have potential single HAP emissions of equal to or greater than 10 tons per year or potential emissions of any combination of HAPs of equal to or greater than 25 tons per year, therefore, it is not a major source of HAPs. This rule only applies to engine test cells that are located at a major source of HAP emissions.
- (f) This source is not subject to the requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56), because this source has a potential to emit of less than 10 tons per year of a single HAP and less than 25 tons per year of the combination of HAPs, and is therefore not a major source of HAPs.

#### **40 CFR 64 Compliance Assurance Monitoring**

- (a) This source does not involve a pollutant-specific emissions unit as defined in 40 CFR 64.1 for any regulated air pollutant:
  - (1) with the potential to emit before controls equal to or greater than the major source threshold for a regulated air pollutant;
  - (2) that is subject to an emission limitation or standard for any regulated air pollutant; and
  - (3) uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard.

Although each of the eight (8) engine test cells have potential CO emissions greater than the major source threshold of 100 tons per year, they are not subject to an emission limitation or standard for CO and they do not use a control device to comply with a CO emission limitation. They also have a combined federally enforceable PSD minor limit for CO of less than 100 tons per year. Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable to this source.

#### **State Rule Applicability - Entire Source**

##### **326 IAC 2-2 (PSD)**

This source is a secondary metal production plant because it produces aluminum parts which are alloys. Therefore, this source is one of the 28 listed source categories under 326 IAC 2-2-1(p)(1).

Pursuant to the First Significant Permit Revision No. 003-11697-00064, issued on April 26, 2001, emissions of all criteria pollutants from the equipment present at this source prior to installation of the eight (8) engine test cells in 2001, as permitted in the Second Significant Permit Revision No. 003-13612-00064, issued on August 20, 2001, are less than 100 tons per year, therefore, this source was considered an existing minor PSD source with respect to the installation of the engine test cells. Pursuant to Second Significant Permit Revision No. 003-13612-00064, issued on August 20, 2001, the source has limited the total usage of fuel in the eight (8) engine test cells to 50,253 gallons of gasoline and gasoline equivalents per twelve (12) consecutive month period, with compliance determined at the end of each month, and 327,814 gallons of diesel and diesel equivalents per twelve (12) consecutive month period, with compliance determined at the end of each month. This limits emissions of NOx, VOC, and CO from the eight (8) engine test cells to less than 100 tons per year so that the installation of the engine test cells was a minor PSD modification and the requirements of this rule do not apply.

The furnace particulate emission limits pursuant to 326 IAC 6-3-2, included on the next page, when converted to tons per year based on 8,760 hours per year, result in allowable particulate emissions that could potentially exceed 100 tons per year, which would make the requirements of 326 IAC 2-2 (PSD) applicable. Therefore, an additional pound per hour particulate emission limit for each furnace is included in the Part 70 permit to ensure that particulate emissions from all the furnaces at this source do not exceed 92.0 tons per year so that the particulate emissions from all emission units present at the source prior to installation of the engine test cells in 2001 are limited to less than 100 tons per year so that the requirements of 326 IAC 2-2 (PSD) do not apply to this source. The following particulate emission limits apply to the furnaces:

- (a) The PM emissions from each of the ten (10) reverberatory furnaces, identified as F4 - F5, F11, F12, F17 - F18, F20 - F23, shall be limited to 0.42 pounds per hour.
- (b) The PM emissions from the one (1) reverberatory furnace, identified as F14, shall be limited to 0.63 pounds per hour.
- (c) The PM emissions from the one (1) melt furnace, identified as M1, shall be limited to 0.35 pounds per hour.
- (d) The PM emissions from the one (1) melt furnace, identified as M4, shall be limited to 0.71 pounds per hour.
- (e) The PM emissions from the one (1) hearth furnace, identified as F13, shall be limited to 0.63 pounds per hour.
- (f) The PM emissions from each of the crucible furnaces identified as C1a through C48a shall be limited to 0.19 pounds per hour.
- (g) The PM emissions from each of the crucible furnaces identified as C1b through C11b shall be limited to 0.38 pounds per hour.
- (h) The PM emissions from each of the crucible furnaces identified as C1c and C2c shall be limited to 0.57 pounds per hour.

Limits to render 326 IAC 2-2 not applicable for PM10 are not necessary because potential uncontrolled PM10 emissions from the units present at the source prior to installation of the eight engine test cells in 2001 are less than 100 tons per year. Potential PM10 emissions from the eight engine test cells are less than 100 tons per year, therefore, PM10 limits are not necessary and the installation of those units was a minor modification to an existing minor PSD source. Therefore, PM10 limits are not necessary to render 326 IAC 2-2 not applicable.

Potential emissions of all pollutants from the equipment added under Administrative Amendment No. 003-15448-00064, issued on May 22, 2002, Exemption No. 003-16893-00064, issued on January 14, 2003, and Exemption No. 003-16987-00064, issued on February 14, 2003, were less than the PSD major modification thresholds.

Potential source wide emissions of CO and NOx are greater than 100 tons per year, therefore, this source is now a major PSD source.

#### 326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM-10, VOC, NOx, and CO. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

**326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability - Individual Facilities**

**326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes)**

The particulate from the source shall be limited as follows:

- (a) The particulate emissions from each of the ten (10) reverberatory furnaces, identified as F4 - F5, F11 - F12, F17 - F18, and F20 - F23, shall not exceed the allowable emission rate of 2.22 pounds per hour, based on a process weight rate of 800 pounds per hour for each furnace.
- (b) The particulate emissions from the one (1) dry hearth furnace, identified as F13, shall not exceed the allowable emission rate of 4.1 pounds per hour, based on a process weight rate of 2,000 pounds per hour.
- (c) The particulate emissions from the one (1) reverberatory furnace, identified as F14, shall not exceed the allowable emission rate of 4.1 pounds per hour, based on a process weight rate of 2,000 pounds per hour.
- (d) The particulate emissions from the one (1) melt furnace, identified as M1, shall not exceed the allowable emission rate of 2.91 pounds per hour, based on a process weight rate of 1,200 pounds per hour.
- (e) The particulate emissions from the one (1) melt furnace, identified as M4, shall not exceed the allowable emission rate of 4.76 pounds per hour, based on a process weight rate of 2,500 pounds per hour.
- (f) The particulate emissions from each of the crucible furnaces identified as C1a through C48a shall not exceed the allowable emission rate of 0.88 pounds per hour, based on a process weight rate of 200 pounds per hour for each furnace.
- (g) The particulate emissions from each of the crucible furnaces identified as C1b through C11b shall not exceed the allowable emission rate of 1.4 pounds per hour, based on a process weight rate of 400 pounds per hour for each furnace.
- (h) The particulate emissions from each of the crucible furnaces identified as C1c and C2c shall not exceed the allowable emission rate of 1.8 pounds per hour, based on a process weight rate of 600 pounds per hour for each furnace.
- (i) The particulate emissions from each of the shot blasting systems shall not exceed the allowable emission rate of 2.2 pounds per hour, based on a process weight rate of 800 pounds per hour for each shotblasting system.

The above listed particulate limits were calculated based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The potential particulate emissions from each reverberatory, dry hearth, melt, and crucible furnace and each of the shotblasters at this source are less than the allowable emissions pursuant to this rule, therefore, these units are in compliance with this rule.

Note: The furnace particulate emission limits, when converted to tons per year based on 8,760 hours per year, result in allowable particulate emissions that could potentially exceed 100 tons per year, which would make the requirements of 326 IAC 2-2 (PSD) applicable. Therefore, an additional pound per hour particulate emission limit for each furnace is included in the Part 70 permit to ensure that particulate emissions from all the furnaces at this source do not exceed 92.0 tons per year so that the particulate emissions from all emission units present at the source prior to installation of the engine test cells in 2001 are limited to less than 100 tons per year so that the requirements of 326 IAC 2-2 (PSD) do not apply to this source.

- (j) Pursuant to 40 CFR 52 Subpart P, the particulate matter (PM) from the spray booth (SB<sub>1</sub>) shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Pursuant to 326 IAC 6-3-2(d) and in order to comply with the condition above, the paper filter for particulate control shall be in operation in accordance with manufacturer's specifications and control emissions from the spray booth at all times when the one (1) spray booth (SB<sub>1</sub>) is in operation.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

- (a) The three (3) boilers, with maximum heat input capacities of 8.4, 1.0, and 8.59 MMBtu per hour, referred to as Boiler #2, Boiler #3, and Boiler #5, respectively, are subject to the requirements of 326 IAC 6-2-3 because these units are indirect heating facilities that were in operation prior to September 21, 1983.

Pursuant to this rule, particulate emissions from these units shall be limited by the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where:

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, which-ever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet.

Since the stack heights of each of the boilers are different, the average stack height was calculated using the following equation in 326 IAC 6-2-4(a):

$$h = \frac{\sum_{i=1}^N H_i \times pa_i \times Q}{\sum_{i=1}^N pa_i \times Q} = 39.1 \text{ ft.}$$

where:

pa = the actual controlled emission rate in lb/MMBtu using the AP-42 emission factor.

For the three (3) boilers, Pt is calculated as follows:

$$Pt = \frac{50 \times 0.67 \times 39.1}{76.5 \times 17.99^{0.75} \times 6^{0.25}} = 1.25 \text{ lb/MMBtu}$$

However, pursuant to 326 IAC 6-2-3(d), particulate emissions from all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 lb/MMBtu heat input. Therefore, the allowable particulate matter emissions from each of Boiler #2 and #5, which were constructed in 1955, shall not exceed 0.8 lb/MMBtu heat input.

Pursuant to 326 IAC 6-2-3(e), particulate emissions from any facility used for indirect heating purposes which has 250 MMBtu per hour heat input or less and which began operation after June 8, 1972, shall in no case exceed 0.6 lb/MMBtu heat input. Therefore, the allowable particulate matter emissions from Boiler #3, which was constructed in 1983, shall not exceed 0.6 lb/MMBtu heat input.

Potential PM emissions from each of Boilers #2, #3, and #5 are 0.002 lb/MMBtu heat input, therefore, these boilers are in compliance with this rule.

- (b) The four (4) boilers, with maximum heat input capacities of 3.5, 2.5, 3.5, and 3.5 MMBtu per hour, referred to as Boiler #7, Boiler #8, Boiler #9, and Boiler #10, respectively, are subject to the requirements of 326 IAC 6-2-4 since they are indirect heating facilities that were constructed after September 21, 1983.

Pursuant to this rule, particulate emissions from these units shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input  
Q = Total source maximum operating capacity rating in MMBtu/hr heat input.  
= 30.99 MMBtu/hr

Based on the above equation, particulate emissions from each of boilers #7, #8, #9, and #10 shall be limited to 0.45 pound per MMBtu heat input.

Potential PM emissions from each boiler are 0.002 lb/MMBtu heat input, therefore, these units are in compliance with 326 IAC 6-2-4.

#### 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The eight (8) engine test cells are not subject to the requirements of this rule because potential SO<sub>2</sub> emissions from each engine test cell are less than 25 tons per year or 10 pounds per hour. Each test cell is operated independently of the others, therefore, each engine test cell is a separate facility.

Potential SO<sub>2</sub> emissions from each of the boilers and furnaces at this source are less than 25 tons per year, therefore, they are not subject to this rule.

#### 326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

The eight (8) engine test cells are not subject to the requirements of this rule because potential VOC emissions from each engine test cell are less than 25 tons per year. Each test cell is operated independently of the others, therefore, each engine test cell is a separate facility.

Potential VOC emissions from the melting of the aluminum in the reverberatory and crucible furnaces, from combustion, and from pouring/casting are less than 25 tons per year, therefore, these units are not subject to this rule.

Pursuant to FESOP No. F003-5869-00064, issued on December 9, 1996, the amount of oil charged to the evaporator minus the oil disposed of as waste shall be limited to 32,880 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This limits VOC emissions from the evaporator to less than 25 tons per year so that this rule does not apply to the evaporator.

#### 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

The surface coating operation for surface coating pistons is not subject to this rule because it was constructed after November 1, 1980 and prior to July 1, 1990 and potential VOC emissions are less than 25 tons per year.

#### 326 IAC 8-3 (Organic Solvent Degreasing Operations)

The aqueous parts washers and board washers are not subject to this rule since they do not use organic solvents.

### Testing Requirements

PM and PM10 testing was performed on the reverberatory furnace identified as F14 on January 18, 2000 in order to develop a PM and PM10 emission factor for the melting operations conducted at the source. These emission factors were approved by the OAQ in a written memo on March 7, 2000 and are valid for all the reverberatory and melt furnaces at the source. Testing is required for the melting operations to demonstrate compliance with the PM limits pursuant to 326 IAC 6-3-2 and to render the requirements of 326 IAC 2-2 (PSD) not applicable. Since testing was last performed on January 18, 2000, testing on reverberatory furnace F14 will not be required until the period between January, 2005 and June, 2005.

Testing is not required for the engine test cells because emissions are based on emission factors from FIRE version 6.23 for engine testing.

Testing is not required for the anodizing lines because emissions for these types of operations are similar to emissions from chromium electroplating. Based on sources that perform chromium electroplating in Indiana, these emissions are typically at exempt levels. Therefore, since this is an anodizing process using sulfuric acid, not chromic acid, it is assumed that emissions will be lower than that for chromium electroplating so no testing was required.

Testing is not required for the evaporator because compliance with the VOC emission limit can be determined through record keeping and reporting of the oil usage.

Testing is not required for the shot blasting systems because compliance can be demonstrated through visible emissions notations, parametric monitoring and baghouse inspections.

Testing is not required for any other units at this source because they do not meet any of the criteria which would require a test.

### **Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The spray booth (SB<sub>1</sub>) has applicable compliance monitoring conditions as specified below:
  - (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for the spray booth (SB<sub>1</sub>) must operate properly to ensure compliance with, 40 CFR 52, Subpart P, and 326 IAC 2-7 (Part 70).

## **Conclusion**

The operation of this aluminum foundry manufacturing pistons shall be subject to the conditions of the attached proposed Part 70 Permit No. T003-15163-00064.

Total Potential To Emit (tons/year)									
Emissions Generating Activity									
Pollutant	Reverberatory and Crucible Furnaces	Pouring/Casting	Engine Test Cells	Natural Gas Combustion	Evaporator and Surface Coating*	Grinding & Welding*	Anodizing Lines***	Spray Booth (SB1)	TOTAL
PM	63.90	0.00	46.76	0.96	0.09	4.58	0.53	4.97	121.79
PM10	61.06	0.00	46.76	3.85	0.09	4.57	0.53	4.97	121.83
SO2	0.00	1.35	43.68	0.30	0.00	0.00	0.66	0.00	45.99
NOx	0.00	0.68	664.55	50.72	0.00	0.00	0.00	0.00	715.95
VOC	6.90	9.47	188.25	2.79	90.62	0.00	0.00	0.00	298.03
CO	0.00	0.00	5011.49	42.60	0.00	0.00	0.00	0.00	5054.09
total HAPs**	7.90	0.00	negl.	0.96	0.07	0.00	0.00	0.00	8.93
worst case single HAP**	6.77	0.00	negl.	0.91	0.07	0.00	0.00	0.00	6.77

**Limited Potential to Emit (tons/year)**

Emissions Generating Activity									
Pollutant	Reverberatory and Crucible Furnaces	Pouring/Casting	Engine Test Cells	Natural Gas Combustion	Evaporator and Surface Coating*	Grinding & Welding*	Anodizing Lines****	Spray Booth (SB1)	TOTAL
PM	63.90	0.00	6.97	0.96	0.09	4.58	0.35	4.97	81.82
PM10	61.06	0.00	6.97	3.85	0.09	4.57	0.35	4.97	81.86
SO2	0.00	1.35	6.51	0.30	0.00	0.00	0.43	0.00	8.59
NOx	0.00	0.68	99.00	50.72	0.00	0.00	0.00	0.00	150.40
VOC	6.90	9.47	3.72	2.79	24.62	0.00	0.00	0.00	47.50
CO	0.00	0.00	99.00	42.60	0.00	0.00	0.00	0.00	141.60
total HAPs**	7.90	0.00	negl.	0.96	0.07	0.00	0.00	0.00	8.93
worst case single HAP**	6.77	0.00	negl.	0.91	0.07	0.00	0.00	0.00	6.77

\*\*\*\* The electrolyte holding tanks for each of the anodizing lines are controlled by a packed bed scrubber and are covered. The control efficiency of the packed bed scrubbers for each line is 34%.

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SCC# 3-04-001-03 Smelting Furnace/Reverberatory (Furnaces F4, F5, F11, F12, F17, F18, F20-F23, F14, F13, M1, and M4)						
TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	Maximum: 15700	2000	7.85			
	PM ** lbs/ton Produced 0.019	PM10 ** lbs/ton Produced 0.13	SOx lbs/ton Produced --	NOx lbs/ton Produced --	VOC * lbs/ton Produced 0.2	CO lbs/tons Produced --
Potential Emissions lbs/hr	0.15	1.02	--	--	1.6	--
Potential Emissions lbs/day	3.58	24.49	--	--	37.7	--
Potential Emissions tons/year	0.65	4.47	--	--	6.9	--
SCC# 3-04-001-14 Pouring/Casting						
TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	Maximum: 30900	2000	15.45			
	PM lbs/ton metal charged --	PM10 lbs/ton metal charged --	SOx * lbs/ton metal charged 0.02	NOx * lbs/ton metal charged 0.01	VOC * lbs/ton metal charged 0.14	CO lbs/tons metal charged --
Potential Emissions lbs/hr	--	--	0.31	0.15	2.16	--
Potential Emissions lbs/day	--	--	7.42	3.71	51.91	--
Potential Emissions tons/year	--	--	1.35	0.68	9.47	--
SCC# 3-04-001-02 Smelting Furnace, Crucible (Crucible furnaces C1a - C48a, C1b - C11b, C1c, and C2c)						
TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	Maximum: 15200	2000	7.6			
	PM * lbs/ton metal produced 1.9	PM10 * lbs/ton metal produced 1.7	SOx lbs/ton metal produced --	NOx lbs/ton metal produced --	VOC lbs/ton metal produced --	CO lbs/tons metal produced --
Potential Emissions lbs/hr	14.44	12.92	--	--	--	--
Potential Emissions lbs/day	346.56	310.08	--	--	--	--
Potential Emissions tons/year	63.25	56.59	--	--	--	--
SCC# 3-04-003-60 Surface grinding operations						
TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	Maximum: 800	2000	0.4			
	PM * lbs/ton metal produced 0.01	PM10 * lbs/ton metal produced 0.0045	SOx lbs/ton metal produced --	NOx lbs/ton metal produced --	VOC lbs/ton metal produced --	CO lbs/tons metal produced --
Potential Emissions lbs/hr	4.0E-03	1.8E-03	--	--	--	--
Potential Emissions lbs/day	0.10	0.04	--	--	--	--
Potential Emissions tons/year	0.02	0.01	--	--	--	--

\* Note: Emission factor is from FIRE version 6.23.

\*\*Note: PM and PM-10 emission factors for reverberatory and melt furnaces were based on approved stack test results from a stack test performed January 18, 2000 on furnace #14. PM-10 includes filterable and condensable particulate matter.

**Appendix A: Emission Calculations**  
**Internal Combustion Engine Testing**  
**Reciprocating**

**Company Name:** Karl Schmidt Unisia, Inc.  
**Address City IN Zip:** 2425 Coliseum Blvd. South, Fort Wayne, Indiana 46803  
**Part 70 Operating Permit No.:** 003-15163  
**Plt ID:** 003-00064  
**Reviewer:** Trish Earls/EVP

**Emissions calculated based on fuel usage**

Maximum Diesel Fuel Usage Per Engine Test Cell (gal/yr) =	275064.0
Limited Diesel Fuel Usage For All Engine Test Cells (gal/yr) =	327814.6
Maximum Gasoline Fuel Usage Per Engine Test Cell (gal/yr) =	317988.0
Limited Gasoline Fuel Usage For All Engine Test Cells (gal/yr) =	50253.8

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Diesel Combustion Emission Factor in lb/1000 gal	42.5	42.5	39.7	604.0	49.3	130.0
Gasoline Combustion Emission Factor in lb/1000 gal	6.47	6.2	5.31	102.0	148.0	3940.0
<b>Diesel Combustion</b>						
Engine Test Cell #1 Potential Emissions in tons/yr	5.85	5.85	5.46	83.07	6.78	17.88
Engine Test Cell #2 Potential Emissions in tons/yr	5.85	5.85	5.46	83.07	6.78	17.88
Engine Test Cell #3 Potential Emissions in tons/yr	5.85	5.85	5.46	83.07	6.78	17.88
Engine Test Cell #4 Potential Emissions in tons/yr	5.85	5.85	5.46	83.07	6.78	17.88
Engine Test Cell #5 Potential Emissions in tons/yr	5.85	5.85	5.46	83.07	6.78	17.88
Engine Test Cell #6 Potential Emissions in tons/yr	5.85	5.85	5.46	83.07	6.78	17.88
Engine Test Cell #7 Potential Emissions in tons/yr	5.85	5.85	5.46	83.07	6.78	17.88
Engine Test Cell #8 Potential Emissions in tons/yr	5.85	5.85	5.46	83.07	6.78	17.88
<b>Total Potential Emissions in tons/yr</b>	<b>46.76</b>	<b>46.76</b>	<b>43.68</b>	<b>664.55</b>	<b>54.24</b>	<b>143.03</b>
<b>Gasoline Combustion</b>						
Engine Test Cell #1 Potential Emissions in tons/yr	1.03	0.99	0.84	16.22	23.53	626.44
Engine Test Cell #2 Potential Emissions in tons/yr	1.03	0.99	0.84	16.22	23.53	626.44
Engine Test Cell #3 Potential Emissions in tons/yr	1.03	0.99	0.84	16.22	23.53	626.44
Engine Test Cell #4 Potential Emissions in tons/yr	1.03	0.99	0.84	16.22	23.53	626.44
Engine Test Cell #5 Potential Emissions in tons/yr	1.03	0.99	0.84	16.22	23.53	626.44
Engine Test Cell #6 Potential Emissions in tons/yr	1.03	0.99	0.84	16.22	23.53	626.44
Engine Test Cell #7 Potential Emissions in tons/yr	1.03	0.99	0.84	16.22	23.53	626.44
Engine Test Cell #8 Potential Emissions in tons/yr	1.03	0.99	0.84	16.22	23.53	626.44
<b>Total Potential Emissions in tons/yr</b>	<b>8.23</b>	<b>7.89</b>	<b>6.75</b>	<b>129.74</b>	<b>188.25</b>	<b>5011.49</b>
<b>Total Worst Case Potential Emissions in tons/yr</b>	<b>46.76</b>	<b>46.76</b>	<b>43.68</b>	<b>664.55</b>	<b>188.25</b>	<b>5011.49</b>
<b>Total Limited Emissions in tons/yr</b>	<b>6.97</b>	<b>6.97</b>	<b>6.51</b>	<b>99.00</b>	<b>3.72</b>	<b>99.00</b>

**Methodology**

Potential Diesel Throughput (gal/yr) = 31.4 gal/hr \* 8760 hr/yr  
 Potential Gasoline Throughput (gal/yr) = 36.3 gal/hr \* 8760 hr/yr

Emission Factors are from FIRE version 6.23, SCC 2-04-004-01, 2-04-004-02, Engine Testing

Emission (tons/yr) = [Potential Throughput (gal/yr) / (1000 gal/kgal) x Emission Factor (lb/kgal)] / (2,000 lb/ton )

\*PM emission factors are assumed to be equivalent to PM10 emission factors. All PM is assumed to be less than or equal to 1 micron.

**Appendix A: Emission Calculations  
Internal Combustion Engine Testing  
Reciprocating**

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**Company Name:** Karl Schmidt Unisia, Inc.  
**Address City IN Zip:** 2425 Coliseum Blvd. South, Fort Wayne, Indiana 46803  
**Part 70 Operating Permit No.:** 003-15163  
**Plt ID:** 003-00064  
**Reviewer:** Trish Earls/EVP

**Fuel Usage Limitations based on NOx Emissions**

Fuel Oil: Diesel

$$\frac{99.00 \text{ tons NOx/year limited}}{664.55 \text{ tons NOx/year potential}} * 2200.51 \frac{\text{Kgals}}{\text{year potential}} = 327.81 \frac{\text{Kgals}}{\text{year limited}}$$

Fuel Oil: Gasoline

$$\frac{99.00 \text{ tons NOx/year limited}}{129.74 \text{ tons NOx/year potential}} * 2543.90 \frac{\text{Kgals}}{\text{year potential}} = 1941.18 \frac{\text{Kgals}}{\text{year limited}}$$

**Fuel Usage Limitations based on VOC Emissions**

Fuel Oil: Gasoline

$$\frac{99.00 \text{ tons VOC/year limited}}{188.25 \text{ tons VOC/year potential}} * 2543.90 \frac{\text{Kgals}}{\text{year potential}} = 1337.84 \frac{\text{Kgals}}{\text{year limited}}$$

**Fuel Usage Limitations based on CO Emissions**

Fuel Oil: Diesel

$$\frac{99.00 \text{ tons CO/year limited}}{143.03 \text{ tons CO/year potential}} * 2200.51 \frac{\text{Kgals}}{\text{year potential}} = 1523.08 \frac{\text{Kgals}}{\text{year limited}}$$

Fuel Oil: Gasoline

$$\frac{99.00 \text{ tons CO/year limited}}{5011.49 \text{ tons CO/year potential}} * 2543.90 \frac{\text{Kgals}}{\text{year potential}} = 50.25 \frac{\text{Kgals}}{\text{year limited}}$$

**Fuel equivalence limit for diesel based on CO emissions from gasoline**

$$\frac{143.03 \text{ diesel potential emissions (ton/yr)}}{2200.51 \text{ diesel potential usage (kgal/yr)}} / \frac{5011.49 \text{ gasoline potential emissions (ton/yr)}}{2543.90 \text{ gasoline potential usage (kgal/yr)}} = 0.0330 \frac{\text{Kgal gasoline burned}}{\text{Kgal diesel burned}}$$

**Fuel equivalence limit for gasoline based on NOx emissions from diesel**

$$\frac{129.74 \text{ gasoline potential emissions (ton/yr)}}{2543.90 \text{ gasoline potential usage (kgal/yr)}} / \frac{664.55 \text{ diesel potential emissions (ton/yr)}}{2200.51 \text{ diesel potential usage (kgal/yr)}} = 0.1689 \frac{\text{Kgal diesel burned}}{\text{Kgal gasoline burned}}$$

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**

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**Company Name:** Karl Schmidt Unisia, Inc.  
**Address City IN Zip:** 2425 Coliseum Blvd. South, Fort Wayne, Indiana 46803  
**Part 70 Operating Permit No.:** 003-15163  
**Pit ID:** 003-00064  
**Reviewer:** Trish Earls/EVP

Emission Unit ID	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Emission Unit ID	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
F4	2.40	21.0	M1	4.00	35.0
F5	2.40	21.0	M4	5.50	48.2
F11	3.10	27.2	C1a-C48a*	24.00	210.2
F12	3.10	27.2	C1b-C11b*	11.00	96.4
F17	2.40	21.0	C1c-C2c*	2.00	17.5
F18	2.40	21.0	Boiler #2	8.40	73.6
F20	3.10	27.2	Boiler #3	1.00	8.8
F21	3.10	27.2	Boiler #5	8.59	75.2
F22	2.40	21.0	Boiler #7	3.50	30.7
F23	3.00	26.3	Boiler #8	2.50	21.9
F13	5.10	44.7	Boiler #9	3.50	30.7
F14	4.60	40.3	Boiler #10	3.50	30.7
			Heat treat oven	1.20	10.5
			<b>TOTAL</b>	<b>115.79</b>	<b>1014.3</b>

\* Heat input capacities for C1a-C48a are 0.5 MMBtu/hr each, heat input capacities for C1b-C11b and C1c-C2c are 1.0 MMBtu/hr each.

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
F4 Potential Emissions in tons/yr	0.02	0.08	0.01	1.05	0.06	0.88
F5 Potential Emissions in tons/yr	0.02	0.08	0.01	1.05	0.06	0.88
F11 Potential Emissions in tons/yr	0.03	0.10	0.01	1.36	0.07	1.14
F12 Potential Emissions in tons/yr	0.03	0.10	0.01	1.36	0.07	1.14
F17 Potential Emissions in tons/yr	0.02	0.08	0.01	1.05	0.06	0.88
F18 Potential Emissions in tons/yr	0.02	0.08	0.01	1.05	0.06	0.88
F20 Potential Emissions in tons/yr	0.03	0.10	0.01	1.36	0.07	1.14
F21 Potential Emissions in tons/yr	0.03	0.10	0.01	1.36	0.07	1.14
F22 Potential Emissions in tons/yr	0.02	0.08	0.01	1.05	0.06	0.88
F23 Potential Emissions in tons/yr	0.02	0.10	0.01	1.31	0.07	1.10
F13 Potential Emissions in tons/yr	0.04	0.17	0.01	2.23	0.12	1.88
F14 Potential Emissions in tons/yr	0.04	0.15	0.01	2.01	0.11	1.69
M1 Potential Emissions in tons/yr	0.03	0.13	0.01	1.75	0.10	1.47
M4 Potential Emissions in tons/yr	0.05	0.18	0.01	2.41	0.13	2.02
C1a-C48a Potential Emissions in tons/yr	0.20	0.80	0.06	10.51	0.58	8.83
C1b-C11b Potential Emissions in tons/yr	0.09	0.37	0.03	4.82	0.26	4.05
C1c-C2c Potential Emissions in tons/yr	0.02	0.07	0.01	0.88	0.05	0.74
B2 Potential Emissions in tons/yr	0.07	0.28	0.02	3.68	0.20	3.09
B3 Potential Emissions in tons/yr	0.01	0.03	0.00	0.44	0.02	0.37
B5 Potential Emissions in tons/yr	0.07	0.29	0.02	3.76	0.21	3.16
B7 Potential Emissions in tons/yr	0.03	0.12	0.01	1.53	0.08	1.29
B8 Potential Emissions in tons/yr	0.02	0.08	0.01	1.10	0.06	0.92
B9 Potential Emissions in tons/yr	0.03	0.12	0.01	1.53	0.08	1.29
B10 Potential Emissions in tons/yr	0.03	0.12	0.01	1.53	0.08	1.29
HT Oven Potential Emissions in tons/yr	0.01	0.04	0.00	0.53	0.03	0.44
<b>TOTAL</b>	<b>0.96</b>	<b>3.85</b>	<b>0.30</b>	<b>50.72</b>	<b>2.79</b>	<b>42.60</b>

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****HAPs Emissions****Company Name:** Karl Schmidt Unisia, Inc.**Address City IN Zip:** 2425 Coliseum Blvd. South, Fort Wayne, Indiana 46803**Part 70 Operating Permit No.:** 003-15163**Pit ID:** 003-00064**Reviewer:** Trish Earls/EVP**HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.065E-03	6.086E-04	3.804E-02	9.129E-01	1.724E-03

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	<b>Total</b>
Potential Emission in tons/yr	2.536E-04	5.579E-04	7.100E-04	1.927E-04	1.065E-03	<b>0.96</b>

Methodology is the same as page 5.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.